

5 **TITLE: MULTI-STAGE SLIDING AIR THROTTLE VALVE ASSEMBLY AND**
 MULTIPLE CYLINDER ENGINE INCLUDING SAME

10 **ABSTRACT OF THE DISCLOSURE**

 A multi-stage air throttle valve assembly is provided for use in a multiple cylinder engine.
The valve assembly provides a series of shiftable valve plates to provide full, maximum opening of
15 air ports having passageways therethrough for introduction of air into the combustion cylinders of
the engine. By use of two or more such sliding plates, the port size through the assembly may be
maximized for enhanced volumetric entry of air into the combustion chambers. A combined reed
valve assembly, fuel injectors and/or an air velocity assembly with engine are also disclosed.